Amendments to the Claims:

Please amend the claims as shown. Applicants reserve the right to pursue any cancelled claims at a later date.

Claims 1-7 (canceled)

8.   (new) A method for storing plant process signals for a plant having at least two operating states comprising:

determining the current operating state of the plant;

applying a corresponding compression method for the current operating state to a set of process signals, wherein said applying the compression method comprises;

acquiring process signals at definable time intervals;

storing the process signals first in a header buffer at an instant other the instant corresponding to the current operating state;

examining the process signals to ascertain whether a process signal has remained within an amplitude band since it was last stored and how long ago it was last stored, wherein the examining step involves selecting the size of the amplitude to correspond to the current operating state of the plant; and

storing the process signal as a part of a compressed signal set if it was last stored longer ago than a predefined time interval.

9.   (new) A method for storing plant process signals according to Claim 8, the compression method further comprising:

acquiring process signals at definable time intervals;

storing the process signals first in a header buffer at an instant other the instant corresponding to the current operating state;

examining the process signals to ascertain whether a process signal has left a further amplitude band since it was last stored and how long ago it was last stored, wherein the examining step involves selecting the size of the further amplitude band to correspond to the current operating state of the plant; and

storing the process signal as a part of a compressed signal set matched to the current operating state only after it has left the further amplitude band.

10.   (new) The method for storing plant process signals as claimed in Claim 8, wherein the acquiring step further comprises acquiring the process signals simultaneously so that the set of process signals corresponds to a particular instant.

11.   (new) The method for storing plant process signals as claimed Claim 8, further comprising after the step of storing the set of compressed signals, determining that the operating state of the plant has changed to a second state, and applying the second compression method corresponding to the second operating state to a set of process signals, wherein the second compression method examines the process signals in accordance with an amplitude band corresponding to the second operating state of the plant.

12.   (new) The method for storing plant process signals as claimed in Claim 8, the acquiring step further comprising selecting time intervals for acquiring process signals according to the current operating state of the plant, and acquiring process signals at definable time intervals.

13.   (new) The method for storing plant process signals as claimed in Claim 8, applying the compression method step further comprises after the step of acquiring process signals at definable time intervals, storing process signals whose current values are in the region of a zero point with the value zero.

14.   (new) The method for storing plant process signals as claimed in Claim 8, wherein the compression method further comprises monitoring the process signals for violation of a limit value.

15.   (new) The method for storing plant process signals as claimed in Claim 8, wherein in the step of applying a corresponding compression method for the current operating state to a set of process signals, the applying step further comprises applying a compression

method with a high compression rate for a plant operating state in which the process signals to be stored have minimal change.

16.   (new) The method for storing plant process signals as claimed in Claim 8, wherein in the step of applying a corresponding compression method for the current operating state to a set of process signals, the applying step further comprises applying a compression method with a low compression rate for a plant operating state in which the process signals to be stored have marked change.

17.   (new) A method for storing plant process signals for a plant as claimed in Claim 8, wherein the plant comprises a turbine plant having at least two operating states, a start-up phase with markedly changing process signals and a normal operating mode following the start-up phase during which the process signals have less-marked change and more constant signals than in the start-up phase, wherein the step of determining the current operating state of the plant determines the start-up operating state; and wherein in the step of applying a corresponding compression method for the current operating state to a set of process signals, the applying step further comprises applying a compression method with a low compression rate for start-up phase.

18.   (new) A method for storing plant process signals for a plant as claimed in Claim 8, wherein the plant comprises a turbine plant having at least two operating states, a start-up phase with generally markedly changing process signals and a normal operating mode following the start-up phase during which the process signals have less marked change and more constant signals than in the start-up phase, wherein the step of determining the current operating state of the plant step determines the normal operating state; and wherein in the step of applying a corresponding compression method for the current operating state normal operation to a set of process signals, the applying step further comprises applying a compression method with a high compression rate for normal operation phase.